

1/12/06

EAST Search History

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|--|---|------------------|---------|------------------|
| L1 | 221 | freimuth.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 16:58 |
| L2 | 7383 | zhang-y.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 16:58 |
| L3 | 161 | howitt.in. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 16:58 |
| L4 | 1 | (L1 and L2 and L3) and (expression adj vector) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 16:58 |
| L5 | 7990 | (protein or polypeptide or peptide) adj(solubility or folding) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 17:00 |
| L6 | 1403 | ((protein or polypeptide or peptide) adj(solubility or folding)) with (improve or improved or enhanced or enhance or increase or increased or chaperon\$) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 17:02 |
| L7 | 894 | ((protein or polypeptide or peptide) adj(solubility or folding)) near3 (improve or improved or enhanced or enhance or increase or increased or chaperon\$) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 17:05 |
| L8 | 396 | L7 and @ad<"20020104" | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 17:05 |
| L9 | 6 | L8 and ((peptide or polypeptide or protein) adj (extension or tail or head)) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 17:05 |

EAST Search History

| | | | | | | |
|-----|------|---|---|----|----|------------------|
| L10 | 553 | ((protein or polypeptide or peptide) adj(solubility or folding)) near3 (improve or improved or enhanced or enhance or increase or increased) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 17:05 |
| L11 | 8 | L10 and ((peptide or polypeptide or protein) adj (extension or tail or head)) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 17:07 |
| L12 | 3 | L11 and @ad<"20020104" | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 17:07 |
| L13 | 3831 | L10 and (net adj charge) or (net adj negative adj charge) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 17:07 |
| L14 | 60 | L10 and ((net adj charge) or (net adj negative adj charge)) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 17:07 |
| L15 | 18 | L14 and @ad<"20020104" | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 17:07 |
| L16 | 0 | L15 and ((peptide or polypeptide or protein) adj (extension or tail or head)) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 17:07 |
| L17 | 1 | L11 and ((net adj charge) or (net adj negative adj charge)) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 17:07 |
| L18 | 0 | L17 and @ad<"20020104" | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2007/01/12 17:07 |

Dialog 10/037,243
LLM 1/12/2007

? d s

| Set | Items | Description |
|-----|-------|---|
| S1 | 1853 | S ((PROTEIN OR POLYPEPTIDE OR PEPTIDE) (3N) (SOLUBILITY OR FOLDING)) (5N) (IMPROVE OR IMPROVED OR ENHANCED OR ENHANCE OR INCREASE OR INCREASED) |
| S2 | 7 | S S1 AND ((NET (W) CHARGE) OR (NET (W) NEGATIVE (W) CHARGE)) |
| S3 | 4 | RD (unique items) |
| S4 | 7 | S S1 AND ((PEPTIDE OR POLYPEPTIDE OR PROTEIN) (2N) (EXTENSION OR TAIL OR HEAD)) |
| S5 | 5 | RD (unique items) |
| S6 | 4 | S S5 NOT PD>020104 |
| S7 | 0 | S S6 AND ((NET (W) CHARGE) OR (NET (W) NEGATIVE (W) CHARGE)) |
| S8 | 4 | S S1 AND ((FUSION (W) PROTEIN) (S) ((PEPTIDE OR POLYPEPTIDE OR PROTEIN) (2N) (EXTENSION OR TAIL OR HEAD))) |
| S9 | 3 | RD (unique items) |

?

[File 172] **EMBASE Alert** 2007/Jan 12
(c) 2007 Elsevier B.V. All rights reserved.

[File 185] **Zoological Record Online(R)** 1978-2007/Jan
(c) 2007 The Thomson Corp. All rights reserved.

[File 357] **Derwent Biotech Res.** _1982-2007/Jan W1
(c) 2007 The Thomson Corp. All rights reserved.

[File 369] **New Scientist** 1994-2007/Oct W2
(c) 2007 Reed Business Information Ltd. All rights reserved.

[File 370] **Science** 1996-1999/Jul W3
(c) 1999 AAAS. All rights reserved.

**File 370: This file is closed (no updates). Use File 47 for more current information.*

[File 391] **Beilstein Reactions** 2006/Q4
(c) 2006 Beilstein GmbH. All rights reserved.

[File 434] **SciSearch(R) Cited Ref Sci** 1974-1989/Dec
(c) 2006 The Thomson Corp. All rights reserved.

[File 467] **ExtraMED(tm)** 2000/Dec
(c) 2001 Informania Ltd. All rights reserved.

? s ((protein or polypeptide or peptide) (3N)(solubility or folding)) (5n) (improve or improved or enhanced or enhance or increase or increased)

Processing

Processing

Processing

| | |
|---------|-------------|
| 9698554 | PROTEIN |
| 464973 | POLYPEPTIDE |
| 1919759 | PEPTIDE |
| 316905 | SOLUBILITY |
| 215071 | FOLDING |
| 1331552 | IMPROVE |
| 2044163 | IMPROVED |
| 1968903 | ENHANCED |
| 666726 | ENHANCE |
| 5829354 | INCREASE |
| 8215556 | INCREASED |

S1 1853 S ((PROTEIN OR POLYPEPTIDE OR PEPTIDE) (3N)(SOLUBILITY OR FOLDING)) (5N)
(IMPROVE OR IMPROVED OR ENHANCED OR ENHANCE OR INCREASE OR INCREASED)

? s s1 and ((net (w) charge) or (net (w) negative (w) charge))

| | |
|--------|--------------|
| 1853 | S1 |
| 820756 | NET |
| 941736 | CHARGE |
| 9387 | NET(W)CHARGE |
| 820756 | NET |

3107517 NEGATIVE
941736 CHARGE
2481 NET(W)NEGATIVE(W)CHARGE
S2 7 S S1 AND ((NET (W) CHARGE) OR (NET (W) NEGATIVE (W) CHARGE))

? rd

>>>W: Duplicate detection is not supported for File 391.
Records from unsupported files will be retained in the RD set.
S3 4 RD (UNIQUE ITEMS)

? t s3/medium/all

3/3/1 (Item 1 from file: 5) Links

Fulltext available through: ScienceDirect (Elsevier) USPTO Full Text Retrieval Options SCIENCEDIRECT
Biosis Previews(R)

(c) 2007 The Thomson Corporation. All rights reserved.

0011912459 Biosis No.: 199900172119

Blood group typing by electrophoresis based on isoelectric focusing

Author: Kane Masateru (Reprint); Nishimura Akiyoshi; Nishi Katsuji

Author Address: Department Legal Medicine, Shiga University Medical Science, Seta Tsukinowa-cho, Otsu
520-21, Japan**Japan

Journal: Analytica Chimica Acta 383 (1-2): p 157-168 March 8, 1999 1999

Medium: print

ISSN: 0003-2670

Document Type: Article; Literature Review

Record Type: Abstract

Language: English

3/3/3 (Item 1 from file: 73) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#) [SCIENCEDIRECT](#)
EMBASE

(c) 2007 Elsevier B.V. All rights reserved.

03690479 EMBASE No: 1988139915

Influence of surface charge on the solubility behaviour of porcine gamma globulin

Mir M.M.; Fazili K.M.; Qasim M.A.

Department of Biochemistry, Faculty of Medicine, Aligarh 202001 India

Medical Science Research (MED. SCI. RES.) (United Kingdom) 1988 , 16/9 (463-464)

CODEN: MSCRE **ISSN:** 0269-8951

Document Type: Journal

Language: ENGLISH **Summary Language:** ENGLISH

3/3/4 (Item 1 from file: 357) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#) [SCIENCEDIRECT](#)

Derwent Biotech Res.

(c) 2007 The Thomson Corp. All rights reserved.

0375541 DBA Accession No.: 2005-21247

Secretion of heterologous proteins in *Bacillus subtilis* can be improved by engineering cell components affecting post-translocational protein folding and degradation plasmid-mediated gene transfer; expression in *Bacillus subtilis* and cell component engineering for recombinant protein production and heterologous protein secretion

Author: VITIKAINEN M; HYYRYLAINEN HL; KIVIMAKI A; KONTINEN VP; SARVAS M

Corporate Affiliate: Natl Publ Hlth Inst

Corporate Source: Sarvas M, Natl Publ Hlth Inst, Vaccine Dev Lab, Mannerheimintie 166, FIN-00300 Helsinki, Finland

Journal: JOURNAL OF APPLIED MICROBIOLOGY (99, 2, 363-375) 2005

ISSN: 1364-5072

Language: English

? s s1 and ((peptide or polypeptide or protein) (2n) (extension or tail or head))
 Processing
 Processing
 1853 S1
 1919759 PEPTIDE
 464973 POLYPEPTIDE
 9698554 PROTEIN
 660244 EXTENSION
 307152 TAIL
 997359 HEAD
 12271 ((PEPTIDE OR POLYPEPTIDE) OR PROTEIN) (2N) ((EXTENSION OR TAIL) OR HEAD)
 S4 7 S S1 AND ((PEPTIDE OR POLYPEPTIDE OR PROTEIN) (2N) (EXTENSION OR TAIL OR HEAD))

? rd
 >>>W: Duplicate detection is not supported for File 391.
 Records from unsupported files will be retained in the RD set.
 S5 5 RD (UNIQUE ITEMS)

? s s5 not pd>020104
 Processing
 >>>W: One or more prefixes are unsupported
 or undefined in one or more files.

5 S5
 13812178 PD>020104
 S6 4 S S5 NOT PD>020104

? S S6 AND ((NET (W) CHARGE) OR (NET (W) NEGATIVE (W) CHARGE))
 4 S6
 820756 NET
 941736 CHARGE
 9387 NET (W) CHARGE
 820756 NET
 3107517 NEGATIVE
 941736 CHARGE
 2481 NET (W) NEGATIVE (W) CHARGE
 S7 0 S S6 AND ((NET (W) CHARGE) OR (NET (W) NEGATIVE (W) CHARGE))

?
 ? d s
 Set Items Description
 S1 1853 S ((PROTEIN OR POLYPEPTIDE OR PEPTIDE) (3N) (SOLUBILITY OR FOLDING)) (5N)
 (IMPROVE OR IMPROVED OR ENHANCED OR ENHANCE OR INCREASE OR INCREASED)
 S2 7 S S1 AND ((NET (W) CHARGE) OR (NET (W) NEGATIVE (W) CHARGE))
 S3 4 RD (unique items)
 S4 7 S S1 AND ((PEPTIDE OR POLYPEPTIDE OR PROTEIN) (2N) (EXTENSION OR TAIL OR HEAD))
 S5 5 RD (unique items)
 S6 4 S S5 NOT PD>020104
 S7 0 S S6 AND ((NET (W) CHARGE) OR (NET (W) NEGATIVE (W) CHARGE))

? t s6/medium/all

6/3/1 (Item 1 from file: 5) **Links**

Fulltext available through: USPTO Full Text Retrieval Options SCIENCEDIRECT
 Biosis Previews(R)

(c) 2007 The Thomson Corporation. All rights reserved.

0015652161 Biosis No.: 200510346661

Stabilizing peptide fusion for solving the stability and solubility problems of therapeutic proteins

Author: Lee Eui Nam; Kim Young Mok; Lee Hye Ja; Park Sang Woo; Jung Han Young; Lee Jae Myun; Ahn Yong-Ho; Kim Jongsun (Reprint)

Author Address: Yonsei Univ, Coll Med, Dept Microbiol, 134 Shinchon Dong, Seoul 120752, South Korea**South Korea

Author E-mail Address: jkim63@yumc.yonsei.ac.kr

Journal: Pharmaceutical Research (Dordrecht) 22 (10): p 1735-1746 OCT 2005 2005

ISSN: 0724-8741

Document Type: Article

Record Type: Abstract

Language: English

6/3/2 (Item 1 from file: 34) [Links](#)

Fulltext available through: [John Wiley and Sons](#) [USPTO Full Text Retrieval Options](#) [SCIENCEDIRECT](#)
SciSearch(R) Cited Ref Sci

(c) 2007 The Thomson Corp. All rights reserved.

05759143 **Genuine Article#:** WW140 **No. References:** 45

Polymerization mechanism of polypeptide chain aggregation

Author: Speed MA; King J; Wang DIC (REPRINT)

Corporate Source: AMGEN INC,1840 DEHAVILLAND DR/THOUSAND OAKS//CA/91320 (REPRINT);
MIT,CTR BIOTECHNOL PROC ENGN/CAMBRIDGE//MA/02139

Journal: BIOTECHNOLOGY AND BIOENGINEERING , 1997 , V 54 , N4 (MAY 20) , P 333-343

ISSN: 0006-3592 **Publication date:** 19970520

Publisher: JOHN WILEY & SONS INC , 605 THIRD AVE, NEW YORK, NY 10158-0012

Language: English **Document Type:** ARTICLE (ABSTRACT AVAILABLE)

6/3/3 (Item 1 from file: 357) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#) [SCIENCEDIRECT](#)

Derwent Biotech Res.

(c) 2007 The Thomson Corp. All rights reserved.

0203177 DBA Accession No.: 96-13948

Strategies for achieving high-level expression of genes in Escherichia coli

- gene expression, protein folding and recombinant protein secretion optimization; a review

Author: Makrides S C

Corporate Affiliate: T-Cell-Sci.

Corporate Source: Department of Molecular Biology, T Cell Sciences, Inc., 119 4th Avenue, Needham, MA 02194, USA.

Journal: Microbiol.Rev. (60, 3, 512-38) 1996

ISSN: 0146-0749 **CODEN:** MBRED3

Language: English

6/3/4 (Item 2 from file: 357) Links

Derwent Biotech Res.

(c) 2007 The Thomson Corp. All rights reserved.

0076869 DBA Accession No.: 88-07718

Studies on the intracellular aggregation and folding of recombinant beta-lactamase in E. coli
- Escherichia coli protein secretion and aggregation in periplasmic space (conference abstract)

Author: Bowden G; Tjelmeland K; +Georgiou G

Corporate Source: Department of Chemical Engineering, University of Texas, Austin, Texas 78712, USA.

Journal: Abstr.Pap.Am.Chem.Soc. (195 Meet., MBTD42) 1988

CODEN: ACSRAL

Language: English

? S S1 AND ((fusion (w) protein) (s)((PEPTIDE OR POLYPEPTIDE OR PROTEIN) (2N) (EXTENSION OR TAIL OR HEAD)))

Processing

Processing

Processing

| | |
|---------|-------------|
| 1853 | S1 |
| 856027 | FUSION |
| 9698554 | PROTEIN |
| 1919759 | PEPTIDE |
| 464973 | POLYPEPTIDE |
| 9698554 | PROTEIN |
| 660244 | EXTENSION |
| 307152 | TAIL |
| 997359 | HEAD |

538 FUSION(W) PROTEIN(S) ((PEPTIDE OR POLYPEPTIDE) OR PROTEIN) (2N) ((EXTENSION OR TAIL) OR HEAD)

S8 4 S S1 AND ((FUSION (W) PROTEIN) (S)((PEPTIDE OR POLYPEPTIDE OR PROTEIN) (2N) (EXTENSION OR TAIL OR HEAD)))

? rd

>>>W: Duplicate detection is not supported for File 391.

Records from unsupported files will be retained in the RD set.

S9 3 RD (UNIQUE ITEMS)

? t s9/medium/free

>>>E: Item 'free' is not a number

? t s9/medium/all

9/3/1 (Item 1 from file: 5) **Links**

Fulltext available through: [USPTO Full Text Retrieval Options](#) [SCIENCEDIRECT](#)

Biosis Previews(R)

(c) 2007 The Thomson Corporation. All rights reserved.

0015652161 Biosis No.: 200510346661

Stabilizing peptide fusion for solving the stability and solubility problems of therapeutic proteins

Author: Lee Eui Nam; Kim Young Mok; Lee Hye Ja; Park Sang Woo; Jung Han Young; Lee Jae Myun; Ahn Yong-Ho; Kim Jongsun (Reprint)

Author Address: Yonsei Univ, Coll Med, Dept Microbiol, 134 Shinchon Dong, Seoul 120752, South Korea**South Korea

Author E-mail Address: jkim63@yumc.yonsei.ac.kr

Journal: Pharmaceutical Research (Dordrecht) 22 (10): p 1735-1746 OCT 2005 2005

ISSN: 0724-8741

Document Type: Article

Record Type: Abstract

Language: English

9/3/2 (Item 1 from file: 73) [Links](#)

Fulltext available through: [USPTO Full Text Retrieval Options](#) [SCIENCEDIRECT](#)
EMBASE

(c) 2007 Elsevier B.V. All rights reserved.

13361272 EMBASE No: 2005430023

Stabilizing peptide fusion for solving the stability and solubility problems of therapeutic proteins

Eui N.L.; Young M.K.; Hye J.L.; Sang W.P.; Han Y.J.; Jae M.L.; Ahn Y.-H.; Kim J.

J. Kim, Department of Microbiology, Brain Korea 21 Project of Medical Sciences, Yonsei University College of Medicine, Seoul South Korea

Author Email: jkim63@yumc.yonsei.ac.kr

Pharmaceutical Research (PHARM. RES.) (United States) 2005 , 22/10 (1735-1746)

CODEN: PHREE **ISSN:** 0724-8741

Document Type: Journal ; Article

Language: ENGLISH **Summary Language:** ENGLISH

Number Of References: 46